

APPL. No. 10/729,670

Amdt. Dated: March 29, 2005

Reply to: December 28, 2004 Office Action & Notice of Non-Compliant Amendment of 3/25/2005
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LISTING OF CLAIMS

This listing of claims will replace all prior versions or listings of claims in the application.

1. (currently amended) A tank fluid parameter monitoring device comprising;

at least one tank having at least one tank fluid parameter,

at least one tank fluid parameter sensor, said tank fluid parameter sensor further comprising one linear hall effect sensor in magnetic communication with a magnet, said hall effect sensor aligned essentially in the upward and downward travel plane of said magnet, said magnet disposed proportional to said tank fluid parameter, said hall effect sensor inducing a voltage signal in ratiometric proportion to the proximate magnetic field created by said magnet traveling in said upward and downward travel plane.

at least one smart transceiver in communication with at least one said tank fluid parameter sensor,

wherein said smart transceiver further comprises a means for determining if said at least one tank fluid parameter is within a predetermined range and a means for two-way transceiving said at least one tank fluid parameter over wireless telemetry.

2. (previously presented) The device of Claim 1 wherein said tank fluid parameter is liquid level.

3. (canceled) The device of Claim 2 wherein said at least one tank fluid parameter sensor further comprises;

a linear programmable hall effect sensor in magnetic communication with a float magnet, said hall effect sensor aligned essentially in the travel plane of said float magnet, said float magnet disposed proportional to the liquid level tank fluid parameter.

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4. (withdrawn) The device of Claim 2 wherein said at least one tank fluid parameter sensor further comprises;

a potentiometer,

a float magnet disposed proportional to the liquid level tank fluid parameter,

a follower magnet assembly disposed in relation to said float magnet,

wherein said potentiometer is in mechanical communication with said follower magnet assembly and said follower magnet assembly is in magnetic communication with said float magnet.

5. (withdrawn) The device of Claim 2 wherein said tank fluid parameter sensor further comprises;

a pad for sensing the weight of said tank,

a capacitance sensor disposed in said pad, and

a capacitance to voltage conversion circuit.

6. (canceled) The device of Claim 3 wherein said tank fluid parameter sensor further comprises a pressure transducer.

7. (withdrawn) The device of Claim 4 wherein said tank fluid parameter sensor further comprises a pressure transducer.

8. (canceled) The device of Claim 5 wherein said tank fluid parameter sensor further comprises a pressure transducer.

9. (original) The device of Claim 1 wherein said wireless telemetry further comprises a paging network.

10. (original) The device of Claim 1 wherein said wireless telemetry further comprises a cellular network.

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11. (currently amended) A method for monitoring a tank fluid parameter comprising;

providing at least one tank having at least one tank fluid parameter,

measuring at least one tank fluid parameter with a tank fluid parameter sensor, said tank fluid parameter sensor further comprising one linear hall effect sensor in magnetic communication with a magnet, said hall effect sensor aligned essentially in the upward and downward travel plane of said magnet, said magnet disposed proportional to said tank fluid parameter, said hall effect sensor inducing a voltage signal in ratiometric proportion to the proximate magnetic field created by said magnet traveling in said upward and downward travel plane, and

transceiving said tank fluid parameter using at least one smart transceiver in communication with at least one said tank fluid parameter sensor, wherein said smart transceiver further comprises a means for determining if said at least one tank fluid parameter is within a predetermined range and a means for two-way transceiving said at least one tank fluid parameter over wireless telemetry.

12. (previously presented) The method of Claim 11 wherein said tank fluid parameter is liquid level.

13. (canceled) The method of Claim 12 wherein said at least one tank fluid parameter sensor further comprises;

a linear programmable hall effect sensor in magnetic communication with a float magnet, said hall effect sensor aligned essentially in the travel plane of said float magnet, said float magnet disposed proportional to the liquid level tank fluid parameter.

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14. (withdrawn) The method of Claim 12 wherein said at least one tank fluid parameter sensor further comprises;

a potentiometer,

a float magnet disposed proportional to the liquid level tank fluid parameter,

a follower magnet assembly disposed in relation to said float magnet,

wherein said potentiometer is in mechanical communication with said follower magnet assembly and said follower magnet assembly is in magnetic communication with said float magnet.

15. (withdrawn) The method of Claim 12 wherein said tank fluid parameter sensor further comprises;

a pad for sensing the weight of said tank,

a capacitance sensor disposed in said pad, and

a capacitance to voltage conversion circuit.

16. (canceled) The method of Claim 13 wherein said tank fluid parameter sensor further comprises a pressure transducer.

17. (withdrawn) The method of Claim 14 wherein said tank fluid parameter sensor further comprises a pressure transducer.

18. (withdrawn) The method of Claim 15 wherein said tank fluid parameter sensor further comprises a pressure transducer.

19. (original) The method of Claim 11 wherein said wireless telemetry further comprises a paging network.

20. (original) The method of Claim 11 wherein said wireless telemetry further comprises a cellular network.